



# Director's Report

## *61<sup>st</sup> Meeting of* National Advisory Council on Minority Health and Health Disparities

September 2, 2022

**Eliseo J. Pérez-Stable, M.D.**

Director, National Institute on  
Minority Health and Health Disparities  
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**NIH** National Institute  
on Minority Health  
and Health Disparities

# Anthony S. Fauci, M.D.

## National Institute of Allergy and Infectious Diseases Director Steps Down

- America's doctor during some of the most challenging public health crises from HIV/AIDS to SARS to Ebola to COVID-19
- Career spans 54 years, 38 of those leading NIAID, and advised seven U.S. Presidents
- Clinician scientist exemplar
- Will retire from federal service, NIH and White House role, to pursue the next chapter of his career in December 2022



# NIH Leadership Update

## National Cancer Institute Director Selection

### **Monica M. Bertagnolli, M.D.**

- Selected as the 16th and first female Director of the National Cancer Institute (NCI)
- Comes to NIH from Harvard/Brigham where she was the Richard E. Wilson Professor of Surgery in surgical oncology
- Dr. Bertagnolli specializes in treating gastrointestinal cancers and advocates for more diversity of patients enrolled in clinical trials



# Advanced Research Project Agency for Health (ARPA-H)

## Adam H. Russell, D.Phil.

- Secretary Xavier Becerra selected Dr. Adam H. Russell to serve as the acting deputy director for ARPA-H
- Was the Chief Scientist at University of Maryland's Applied Research Laboratory for Intelligence and Security
- Broad technical and management experience and expertise in cognitive neuroscience, physiology, and social anthropology
- BA in cultural anthropology from Duke U, and a D.Phil. in social anthropology from Oxford U, where he was a Rhodes Scholar
- Began ARPA-H role in June 2022



# NIH Leadership Updates

## **Kevin D. Williams, J.D.**

Director of the NIH Office of Equity, Diversity, and Inclusion

- Oversees the analysis and publication of NIH workforce data to inform the agency's approach to fostering a more inclusive work environment and equitable organizational culture



## **Nina F. Schor, M.D., Ph.D.**

NIH Acting Deputy Director for Intramural Research

- Replaces Michael M. Gottesman, M.D., who served for the past 29 years
- Facilitates coordination and collaboration in the \$5 billion NIH intramural research community
- Pediatric neurologist, Deputy Director NINDS



# NIH Leadership Updates

## James M. Anderson, M.D., Ph.D.

Director of the Division of Program Coordination,  
Planning, and Strategic Initiatives  
Retirement



- Oversaw the efforts of a broad range of research portfolios as well as the NIH Common Fund since 2010
- Robert W. Eisinger, Ph.D., will return to NIH to serve as the Acting Director of DPCPSI while a national search is conducted



# NIMHD Updates



National Institute  
on Minority Health  
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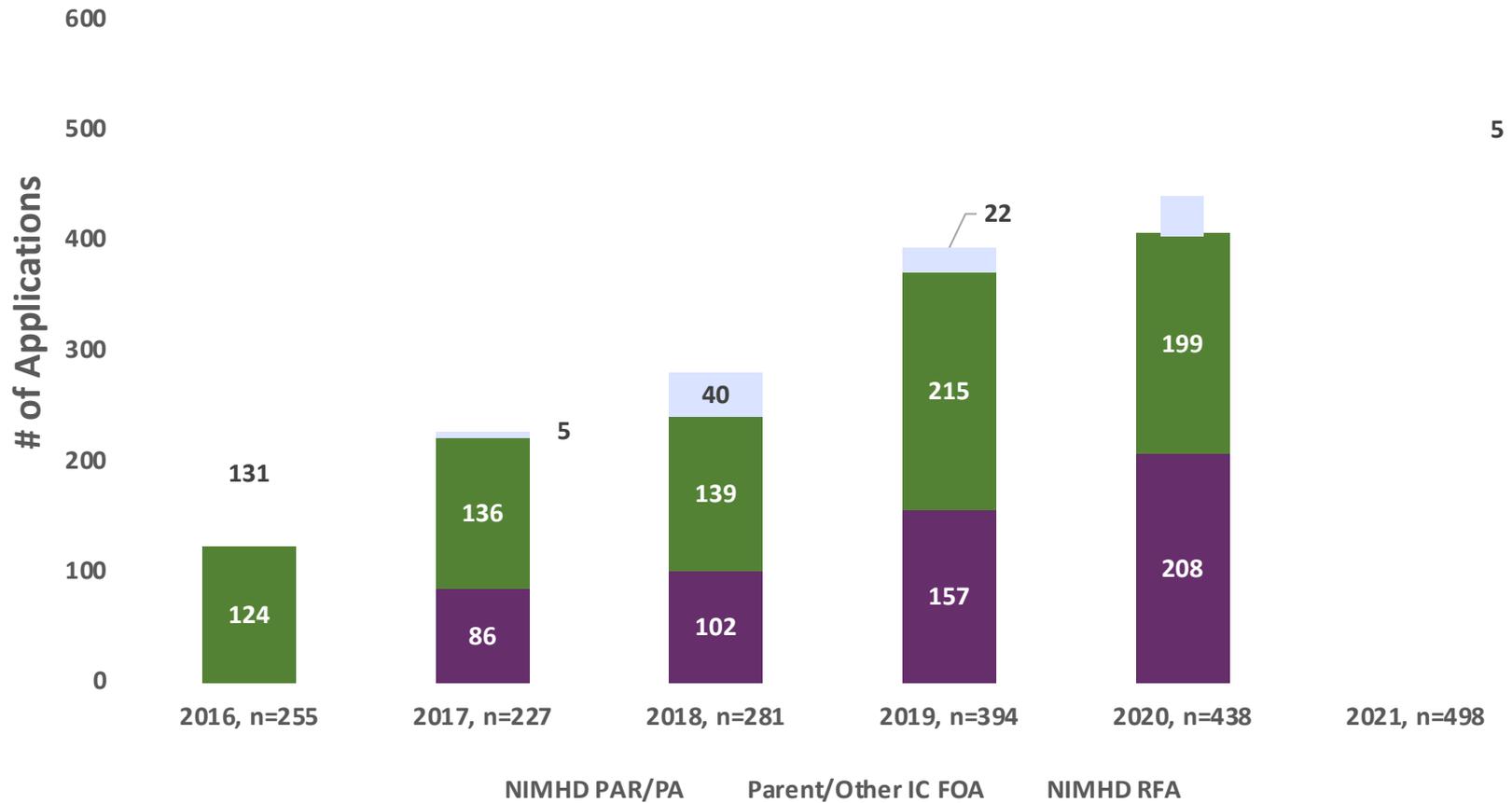


# NIMHD R01 Applications and Award Rate

<b>FY</b>	<b># of R01 applications</b>	<b># of R01 awards</b>	<b>Success Rate %</b>
<b>2021</b>	<b>494</b>	<b>64</b>	<b>13.0%</b>
<b>2020</b>	<b>437</b>	<b>42</b>	<b>9.6%</b>
<b>2019</b>	<b>394</b>	<b>41</b>	<b>10.4%</b>
<b>2018</b>	<b>281</b>	<b>39</b>	<b>13.9%</b>
<b>2017</b>	<b>227</b>	<b>59</b>	<b>26.0%</b>
<b>2016</b>	<b>124</b>	<b>33</b>	<b>26.6%</b>



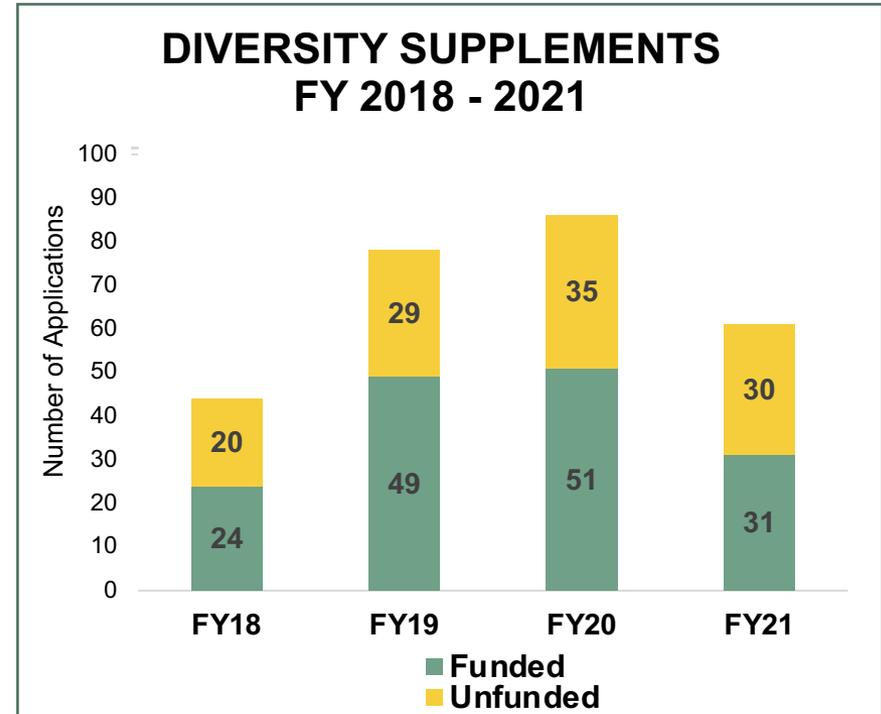
# Sources of NIMHD R01/U01 Applications



# NIMHD Diversity Supplements

## DIVERSITY SUPPLEMENTS BY MECHANISM FUNDED AWARDS

	R01	U01	U54	P50
2018	11	5	3	1
2019	18	5	5	1
2020	22	3	10	0
2021	18	0	11	0



### Fiscal year 2018

- Received 24 applications
- Funded 20 (83%) applications

### Fiscal year 2019

- Received 49 applications
- Funded 29 (59%) application

### Fiscal year 2020

- Received 51 applications
- Funded 35 (69%) applications

### Fiscal year 2021

- Received 61 applications
- Funded 30 (50%) application



# R01 Applicant Award Rates, 2018 - 2021

## Early-Stage Investigators

	2018	2019	2020	2021
<b>Total</b>	<b>86</b>	<b>108</b>	<b>126</b>	<b>152</b>
<b>Awarded</b>	<b>22</b>	<b>12</b>	<b>14</b>	<b>28</b>
<b>Rate</b>	<b>25.6%</b>	<b>11.1%</b>	<b>11.1%</b>	<b>18.4%</b>



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# R01 Applicant Award Rates, 2018-2021

## Established Investigators

Experienced Investigators				
	2018	2019	2020	2021
Total	193	205	215	329
Awarded	56	34	32	68
Rate	29.0%	16.6%	14.9%	20.7%



# Legislative Updates

- **June 29, 2022**, Deborah Duran, Ph.D., participated in a briefing with Senator Bill Cassidy's (R-LA) staff on Artificial Intelligence Used for Medical Imaging Devices
- **August 22, 2022**, Eliseo J. Pérez-Stable, M.D., Monica Webb Hooper, Ph.D., and Nathan Stinson, Jr., Ph.D., M.D., M.P.H., briefed Senator Raphael Warnock's (D-GA) health staff on the Research Endowment Program
- **August 30, 2022**, Eliseo J. Pérez-Stable, M.D., Monica Webb Hooper, Ph.D., and Nathan Stinson, Jr., Ph.D., M.D., M.P.H., briefed Rep. Earl "Buddy" Carter (R-GA) and staff, and Rep. Nanette Barragán's (D-CA) staff on the Research Endowment Program



# NIMHD Staff Updates: New Hires

## **Scientific Diversity Officer, Office of the Director** Triesta Fowler, M.D.

- Comes to NIMHD from the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development



## **Extramural Training Coordinator, Office of the Director**

Dorothy Castille, Ph.D.

- Coordinates and builds NIMHD training and career development initiatives
- Continues as an NIMHD subject matter expert on American Indian/Alaska Native health and manages a small portfolio of other projects



# NIMHD Staff Updates: New Hires

## Training Director, Division of Intramural Research

CAPT Anthony Johnson, Ph.D., M.S.

- Provides guidance and assistance in developing training programs and policies for scientific workforce training
- Helps DIR build comprehensive programs for NIMHD fellows and investigators to meet their training and mentoring needs
- NIMHD Intramural Program has nearly 50 trainees



# NIMHD Staff Updates: Departures

## **Rick Berzon, Dr.PH, PA**

Clinical and Health Services Research (CHSR), Health Science Administrator and Program Director

- After more than 13 years of service at NIMHD, long-standing CHSR employee retired on July 31, 2022



## **Judith A. Arroyo, Ph.D.**

Office of the Director

Health Science Administrator and Special Assistant to the Director

- Came to NIMHD from the National Institute on Alcohol Abuse and Alcoholism, retired on May 31, 2022



# John Lewis NIMHD Research Endowment Program

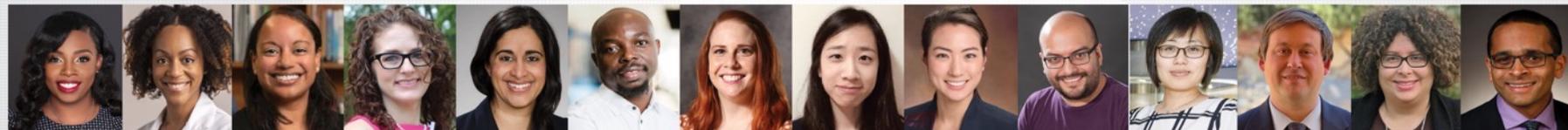
- Enhances endowments to support research infrastructure and training capacity at *eligible institutions* of higher education
- Goal to facilitate minority health and health disparities research and diversify their scientific workforce
- Since 2001, REP has awarded **\$485.9 million** to 22 institutions
- Extends current and former HRSA or NIMHD Centers of Excellence
- Expands eligible institutions from 4 to >40 institutions

## Funding Opportunity Announcement Timeline

- FOA Fall 2022
- Advisory Council review May 2023
- Awards Summer 2023
- Commitment of at least \$12 million in FY 2023



# 2022 Health Disparities Research Institute



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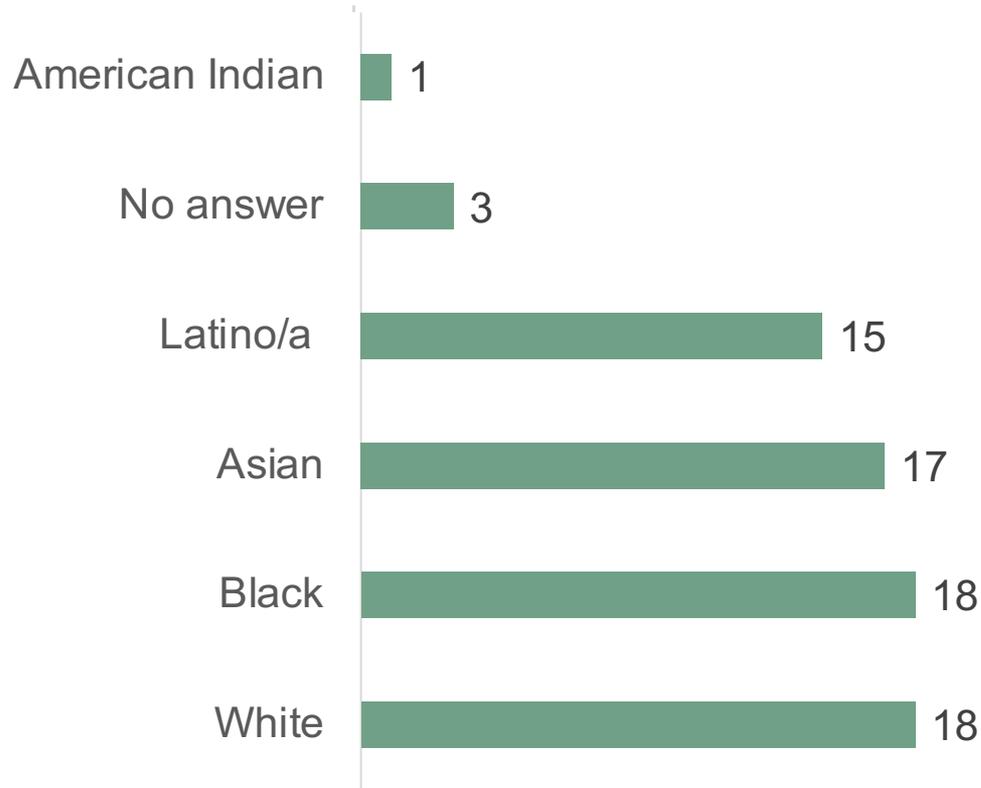


# 2022 Health Disparities Research Institute

- **174** applications submitted
- **72** early-stage career scientists selected to participate
- Participants represented **28** states and the District of Columbia
- Sessions and activities focused on developing knowledge and skills that will assist early-stage investigators in advancing towards independent researcher careers



# 2022 HDRI Cohort Summary (N=72)



	N	Percent
<b>Sex</b>		
Female	56	78
Male	16	22
<b>Degree</b>		
PhD/ScD/DrPH	53	74
MD/DO/PharmD	19	26
<b>Position/Title</b>		
Assistant Professor	51	71
Postdoctoral Fellow	17	24
Other Scientific Position	4	5



# NIMHD Leadership Activities

## Deputy Director, Monica Webb Hooper, Ph.D.

- *Treating Smoking in Cancer Patients: An Essential Component of Cancer Care*  
[National Cancer Institute \(NCI\) Tobacco Control Monograph, Volume 23: June 28](#)



## Scientific Director, Anna María Nápoles, Ph.D.

- The Hill and Telemundo convened a [Latina Leaders Summit](#) on July 20, 2022



## Division of Clinical and Health Services Research Director, Larissa Avilés-Santa, M.D.

- Keynote Speaker at Ponce Research Institute/RCMI Symposium on Health Disparities on May 7, 2022



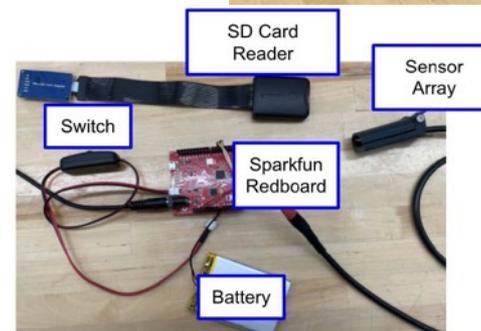
# Design by Biomedical Undergraduate (DEBUT) 2022 Challenge Winners

## NIBIB Steven H. Krosnick Prize

Winner Johns Hopkins University, Baltimore

### EquinOx

- Mitigates the bias that most pulse oximeters exhibit by failing to account for differing patient skin tones
- Combines new hardware that measure both skin tone as well as raw pulse oximeter data with a newly developed algorithm
- Helps to improve estimate blood oxygen saturation

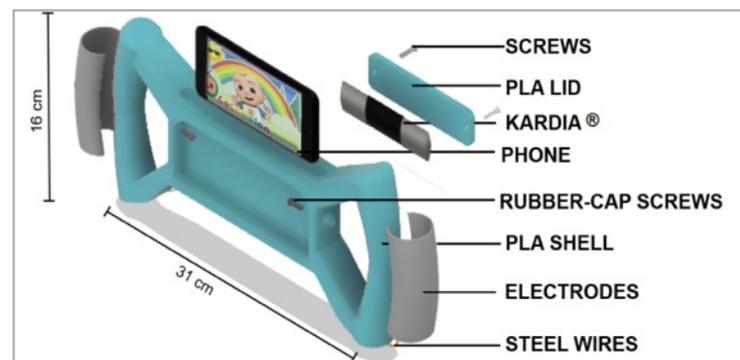


## NIMHD Healthcare Technologies for Low-Resource Settings Prize

Winner: Indiana University–Purdue University  
Indianapolis

### HappyHeart

- An accessory to the FDA-approved Kardia® handheld EKG
- Clinically relevant diagnostic test in just 30 seconds
- Significantly lower clinician time and patient cost compared to 12-lead EKG



# Community Partnerships to Advance Science for Society (ComPASS) Program

Common Fund program that will fund community organizations to partner with researchers to work collaboratively to develop and implement a structural intervention to decrease disparities

- Develop a new health disparities research model for community-led, multisectoral structural intervention research across NIH and other federal agencies

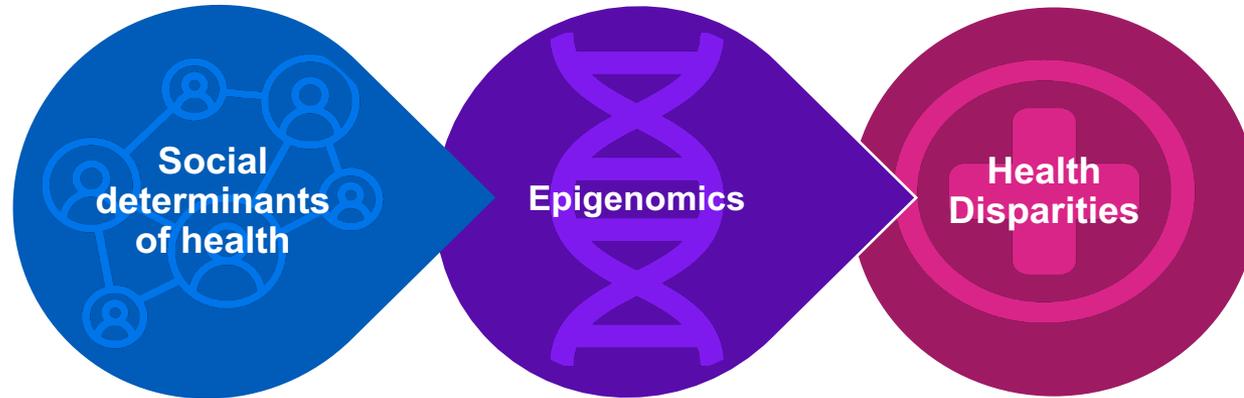


- [Notice of Information: Upcoming Research Opportunity Announcement \(ROA\) for Community Partnerships to Advance Science for Society \(ComPASS\) Program: Community-Led, Health Equity Structural Intervention Initiative \(CHESI\) \(OT2 Clinical Trial Optional\) NOT-RM-23-001](#)
- [Notice of Intent to Publish a Funding Opportunity Announcement for Community Partnerships to Advance Science for Society \(ComPASS\): Coordination Center \(U24 - Clinical Trial Optional\) NOT-RM-23-002](#)



# Social Epigenomics Grantee Meeting

## June 1 – 2, 2022



**DIBBS-organized meeting for 2017-2021 grantees of PAR-16-355, PAR-16-356, PAR-19-372**

- **Objectives:** Discuss best practices, current data, and lessons learned to enhance this integrative research field
- **Recommendations:** Increase opportunities for collaboration, mechanistic studies, longitudinal cohorts, better assays, integration of historical context, social epigenomics in disaggregated groups (e.g., Asian American subpopulations)



# Science Advances



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# Community Testing and SARS-CoV-2 Rates for Latinos in Baltimore, Maryland

## Testing Mechanism & Implementation

- Nasopharyngeal swabs for molecular RT-PCR based testing
- 18 free community testing events (Jun 2020-Oct 2020)
- Positivity rates evaluated per race/ethnicity

## Major Outcomes

- |                       |                          |
|-----------------------|--------------------------|
| 1,786 patients tested | 355 positive tests (20%) |
| • 57.5% Latino/a      | • <b>31.5% Latino/a</b>  |
| • 31.2% White         | • 3.4 % White            |
| • 5.9% Black          | • 7.6% Black             |
| • 5.3 % Other         | • 5.3% Other             |

Latino/a persons who tested positive were:

- Younger than others
- High rate of Limited English Proficiency
- Lived in larger household size

## Key Takeaways

- » **52.9% of Latino/a were asymptomatic vs. 40-45% of non-Latino/a**
  - Indicates a need for testing interventions to detect asymptomatic cases to mitigate ongoing transmission
- » Partnership among community organizers and religious leaders is important to ensure trust among community participants



Bigelow B.F., et al., [Am J Prev Med.](#) 2021.



# Contingency Management and SARS-CoV-2 Testing among People Who Inject Drugs (PWID)

## Target Population

- 9 syringe exchange program (SEP) sites in Oregon; February-mid April 2021
- Led by HIV Alliance
- 5 weeks no contingency management and 6 weeks with \$10 incentive
- 2 rural and 2 urban counties

## Testing Mechanism & Implementation

- Testing kits were deployed and implemented by the local SEP sites
- Utilized a \$10 tangible reward to reinforce COVID-19 testing as a positive behavior

## Major Outcomes

- 123 participants generally mirrored the general SEP client population:
- 80% White, 10% Hispanic/Latino/a
  - 30% Female
  - 55% temporarily housed or unhoused
- 5 weeks before contingency management implementation testing rate = 12.3% unique clients
- Average of 1 SEP client tested/week
- 6 weeks with contingency management implementation = 35.4% unique clients tested
- Average of 6 SEP client tested/week

## Key Takeaways

- » **Contingency management may be an effective strategy for improving communicable disease testing beyond testing for SARS-CoV-2 and for improving vaccine update among PWID**

Cioffi, C. [Public Health Reports](#). 2022



# School Masking Policies and Secondary SARS-CoV-2 Transmission

## Target Population

- 9 U.S. States – North Carolina, Wisconsin, Missouri, California, Washington, Georgia, Tennessee, Kansas, Texas
- 1,112,899 students and 157,069 staff in 61 K-12 districts – 6-Jul-2021 to 13-Dec- 2021

## Testing Mechanism & Implementation

- Testing kits and contact tracing were deployed and implemented by local public health offices
- Prospective, observational, open cohort study from 2 districts implemented a variety of masking policies
  - Universal vs. Partial vs. Optional

## Major Outcomes

- **Districts that optionally masked had 3.6x increased predicted rate** of secondary transmission in comparison to universally masked districts
- For every 100 community-acquired cases, universal masked districts had 7.3 predicted secondary infections as compared to 26.4 for optionally masked districts
- **Universal masking was associated with a 72% reduction** in secondary transmission as compared to optional masking – Overall secondary transmission was low (<10% of total infections)

»» Overall secondary transmission is low in schools, and universal masking is an effective mitigation strategy for maintaining in-school education

Boutzoukas, A., et al., [Pediatrics](#). 2022



# Factors Associated With U.S. Public Motivation to Use and Distribute COVID-19 Self-tests

## Target Population

- U.S. adults  $\geq$  18 years
- 586 adults, median age of 35
- 59.7% male, 40.3% female

## Testing Mechanism & Implementation

- No testing mechanism, online survey deployed
- Amazon MTurk online platform for high-quality health-related data
- Survey format followed the American Association for Public Opinion Research

## Major Outcomes

- High motivation to distribute self-test kits (N = 584)
- Motivated to distribute self-testing to contacts = 90.1%
- Motivated to self-test if kit received from contact = 86.1%
- Motivation to distribute self-tests
  - Above-average income
  - College completion
- Motivation to use self-tests received from contact
  - Above-average income
  - Latino/a ethnicity

## Key Takeaways

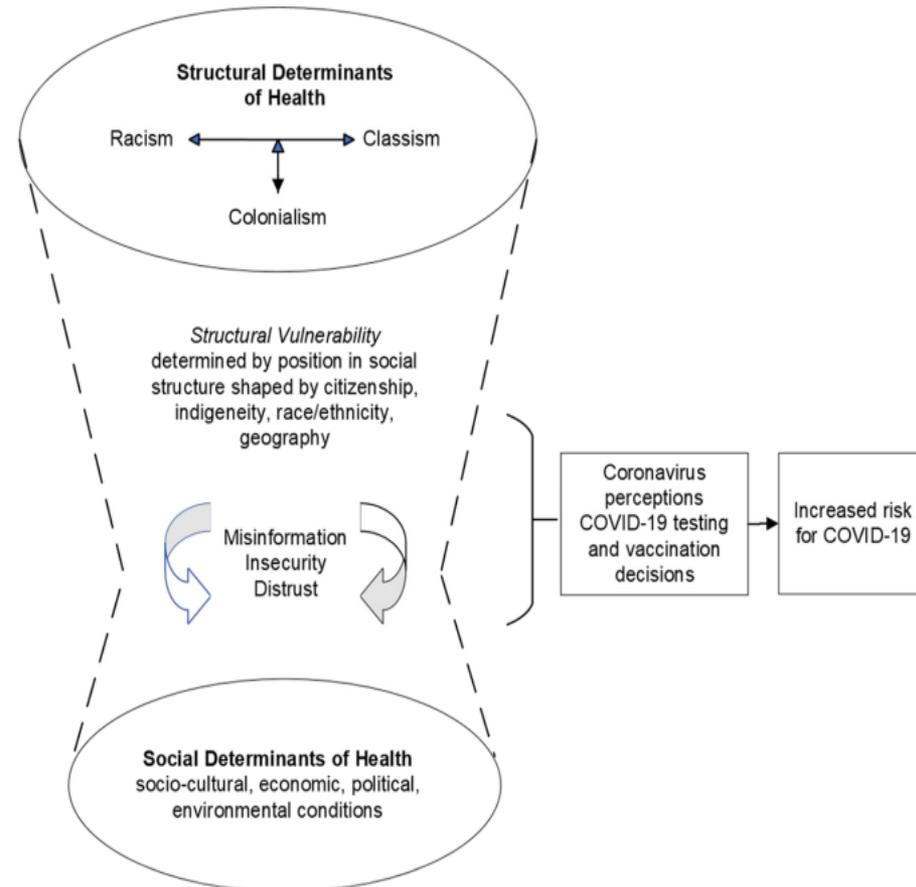
- » **Secondary distribution of COVID-19 self-tests may increase uptake **and** detection**
- » **Behavioral interventions may help increase motivation for lower SES persons**

Bien-Gund, C., et al., [JAMA Network Open](#). 2020.



# COVID-19 Testing and Vaccination in Latino and Indigenous Mexican Communities

- Study to understand how structural and SDOH shaped perceptions of coronavirus, its spread, and decision making around COVID-19 testing and vaccination
- 7 focus groups (six in Spanish and one in Purépecha) were conducted with a total of 55 participants (8/2020 to 1/2021)
- Themes that emerged focused on *misinformation*, shaped by structural factors emerging from historically based *distrust* in government, public health, and medicine, as well as social factors of *insecurity* and *fear* linked to present day *employment* and *deportation concerns*



*Findings can be used to inform interventions addressing issues of (dis)trust in government and public health*

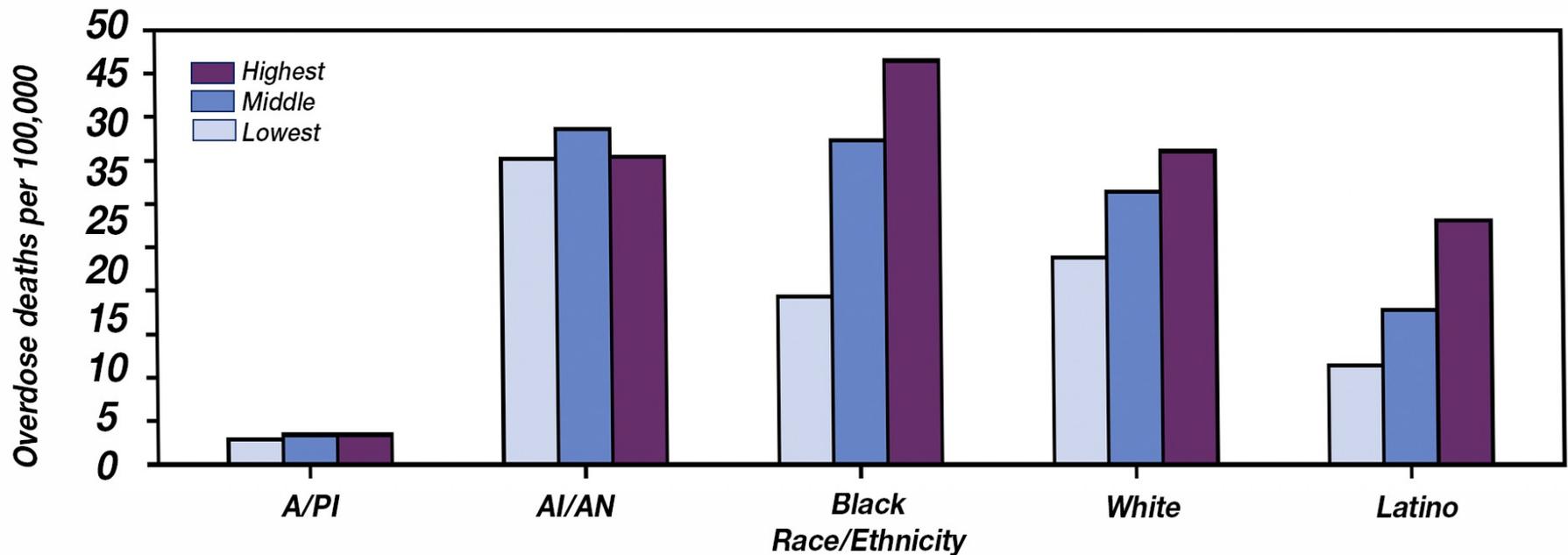
Grant No. U54 MD013368

Gehlbach, D., et al., [BMC Public Health](#). 2022.



# Age Adjusted Overdose Deaths by Race/Ethnicity and Income Inequality

25 States and DC, 2019-2020; *MMWR* 2022; 71:29: 940-947

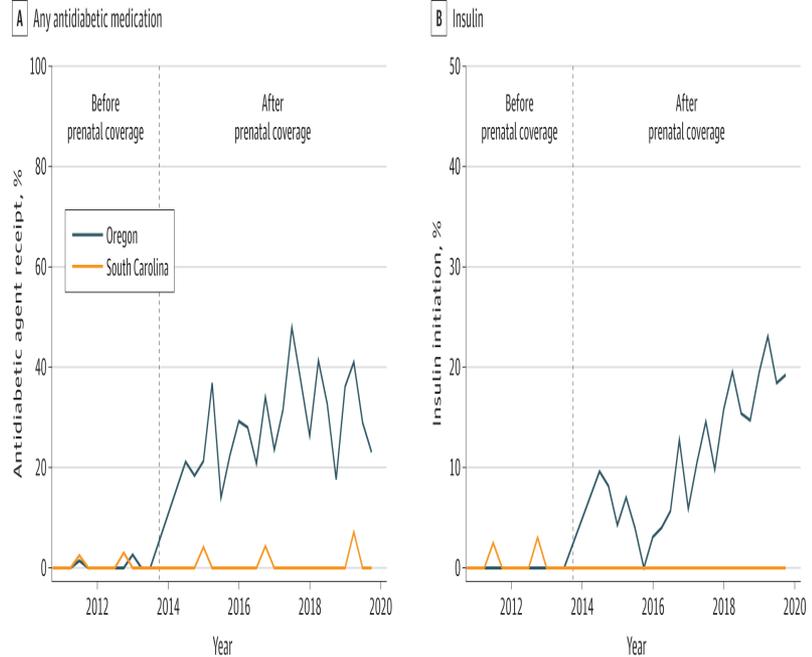


# Prenatal Care Expansion and Use of Antidiabetic Agents During Pregnancies Among Latinas with Emergency Medicaid

Does prenatal care expansion impacts antidiabetic medication use among Latina patients with **gestational diabetes**.

- Used linked Medicaid claims and birth certificate data on live births to 4,869 Latina patients from 2010 to 2019, comparing Oregon to South Carolina
- Diff-in-diff analyses showed that prenatal care coverage was associated with a 27.9% increase in antidiabetic medication use, and a 10.4% increase in insulin use among patients with gestational diabetes

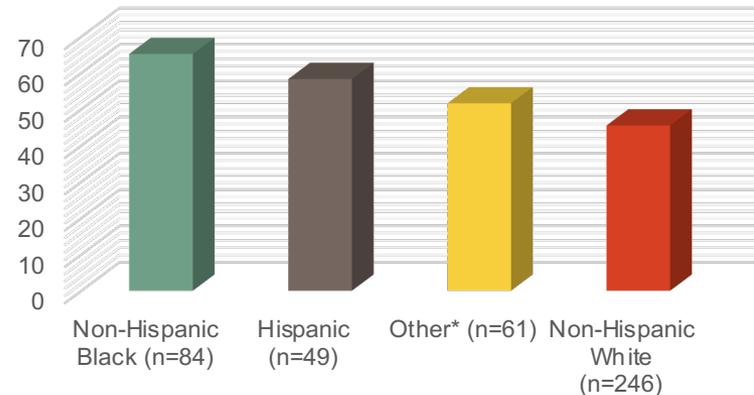
**Figure 1.** Difference-in-Differences Estimates of Any Medication Initiation and Insulin Initiation Among Latina Emergency Medicaid Recipients With Gestational Diabetes, 2010-2019



# Racial and Ethnic Disparities in Gestational Diabetes Management

- Retrospective study of 440 women with gestational diabetes mellitus (GDM) who received pharmacotherapy
- Black, Latina, and women of “other” race/ethnicity had higher % elevated capillary blood glucose (CBGs) prior to pharmacotherapy initiation compared to White women
- GDM prevalence higher in Latina and Asian women, Black women have the highest rate of GDM-related adverse outcomes
- Lack of consensus in timing of pharmacotherapy may contribute to racial disparities in GDM treatment and outcomes; guidelines needed

Percent of Abnormal Blood Glucose Level Prior to Pharmacotherapy Initiation

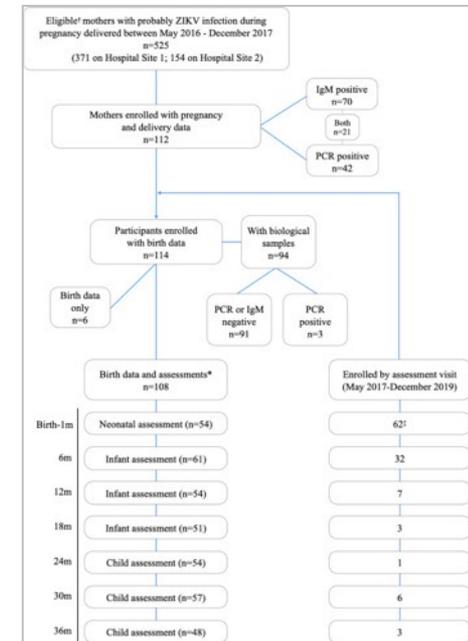


\*Other includes Asian and American Indian/Alaskan Native women



# Early Childhood Neurodevelopmental Outcomes in Children with Prenatal Zika Virus Exposure: A Cohort Study in Puerto Rico

- To describe anthropometric, sensory and neurodevelopmental outcomes of Zika virus exposed children from birth to 36 months
- 114 children of mothers with Zika infection from 2016-2017 underwent physical/neurologic, sensory examinations, and neurodevelopmental assessments between May 2017-February 2017 with the Bayley Scales of Infant and Toddler Development (BSID-III) and Ages and Stages Questionnaires
- 2.6% had microcephaly ( $z$  score  $\leq -2$ ) at birth, 54.3% had posterior eye abnormalities in retinal image, 10.1% had nonspecific findings on brain ultrasound. 2.8% failed hearing screen at birth. 17.% failed age-appropriate vision screening. **BSID-III showed developmental delay in at least one domain in 1/3 of children.** ASQ-3 screen positive delay peaked around 24 or 36 months. Correlations were present among BSID-III and ASQ-3 scores representing profession and parental perspectives at 24 and 36 months
- Neurodevelopmental sequelae are present in early childhood and vulnerability in language domain was identified



# Nonalcoholic Fatty Liver Disease Prevalence & Risk Factors in Mexican Origin Adults

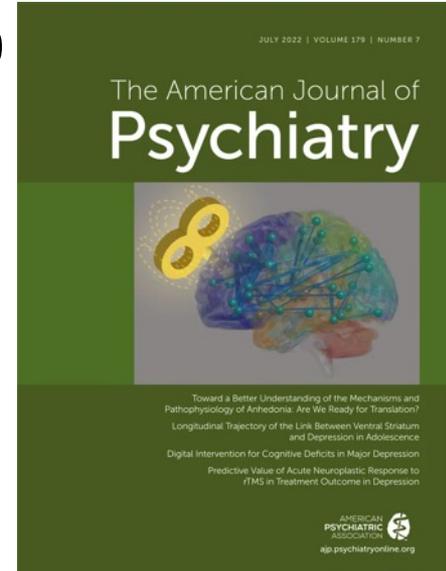
- Prevalence of nonalcoholic fatty liver disease (NAFLD) and determined risk factors by sex and age in a southern Arizona community sample of 307 Mexican origin adults (194 women; 113 men)
- All had overweight/obesity and completed vibration-controlled transient elastography (FibroScan) to assess NAFLD
- 155 participants (**50%**) **had NAFLD** (52% of women; 48% of men); sex, age, PNPLA3 risk allele carrier status, comorbidities not associated
- Significant **predictors of steatosis** were age, PNPLA3 risk allele carrier status, and interaction of BMI and sex
- Larger effect of BMI on steatosis for men
- Weight management interventions needed to address higher rates of NAFLD in MO populations



# Analysis of Lack of Representation in Psychiatric Research

Examined the representation of SGM and racial and ethnic minorities in the American Journal of Psychiatry, 2019-2020

- Coded 125 articles for sociodemographic information and health equity topics
- Compared proportion of participants from racial/ethnic minority groups in research to U.S. Census estimates
- Asian and Hispanic/Latino participants were underrepresented in 78% of articles
- Black participants were underrepresented in 29% of articles
- **Only one study reported sexual identity of participants**
- Only two studies examined inequities/disparities for psychiatric illnesses in minoritized populations



*Findings bring attention to a stark lack of representation in psychiatry research and serve as a call for change*

Grant No. R00MD012813

Pedersen et al., [Am. J. Psychiatry](#). 2022.



# Discrimination, Institutional Responses, and Depressive Symptoms in Black U.S. Medical Students

Relationship between discrimination, institutional responses to seminal race events, and depressive symptoms among Black medical students

- Cross-sectional survey of 733 Black students in 8/2020
- 67% reported feeling that they work twice as hard as others to get the same treatment or evaluation
- 52% reported being watched more closely than others
- 21% reported that their institution never or rarely responds to seminal race events that largely implicate Black individuals
- Students who reported more discrimination experiences or that their institutions did not respond to seminal race events were more likely to report depressive symptoms
- *Perceived lack of institutional support represents an area of actionable improvement*

Grant No. U54MD011227

Milam, A., et al., [Academic Medicine](#). 2022.



# Neighborhood Poverty, Allostatic Load, and Cellular Aging in African American Young Adults: Role of Attachment

Impact of living in impoverished neighborhoods on allostatic load and increased risk of accelerated aging in young adults

- Does adult **attachment style** moderate this risk among rural African American young adults
- Randomly selected 500 adults, aged 19-20 y, who were enrolled as children in the Strong African American Health Adults Project (Brody et al., 2013). Participants provided urine and blood samples in 2009-2010 and were reassessed ~7 years later; those in romantic relationships were asked to report on their attachment
- Exposure to neighborhood poverty across ages 11-18 was associated with allostatic load
- High attachment avoidance moderated the relationship between allostatic load and changes in cellular aging
- Allostatic load was only associated with faster aging for those who were avoidant
- Negative cascading effects of exposure to neighborhood poverty may be mitigated for African American young adults via low levels of attachment avoidance, and different attachment styles can offer protection

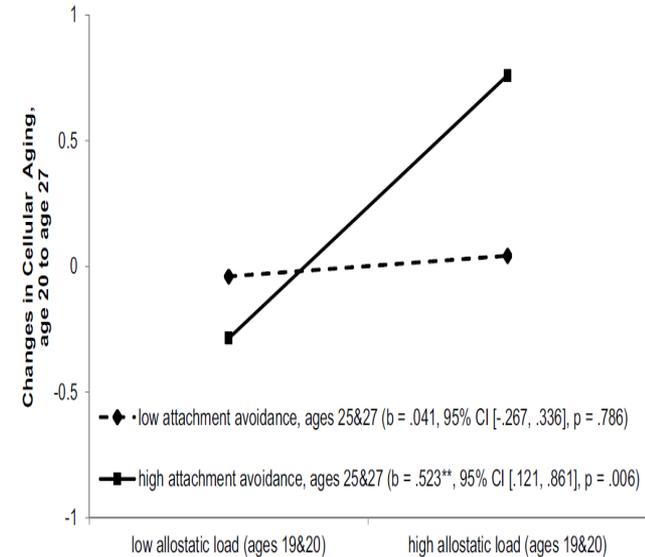


Figure 1. The effect of allostatic load at ages 19 and 20 on changes in cellular aging from age 20 to 27 by attachment avoidance at ages 25 and 27. Numbers in parentheses refer to slopes for low (1 SD below the mean) vs. high (1 SD above the mean) attachment avoidance. \*\* $p < .01$ .



# Life Expectancy in the U.S. Increased Between 2000-2019, by Race and Ethnicity and County

- Shows there are large and persistent disparities in life expectancy among racial and ethnic groups in the U.S., but the extent to which these patterns vary geographically on a local scale is not well understood
- Estimated life expectancy for five racial and ethnic groups, in 3,110 U.S. counties over 20 years, to describe spatial–temporal variations

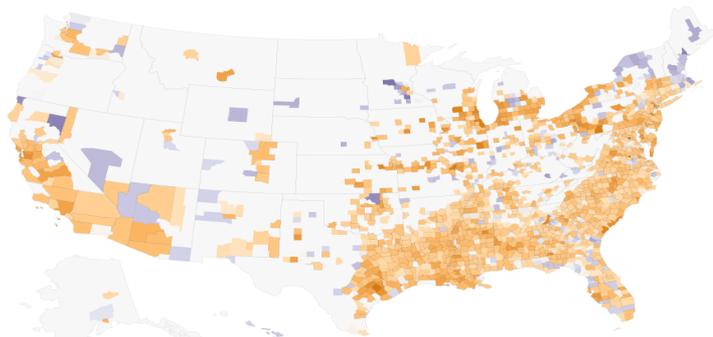


- GBD US Health Disparities Collaborators, The Lancet, June 16, 2022
- Researchers at the Institute for Health Metrics and Evaluation in collaboration with NIMHD, National Heart, Lung, and Blood Institute, the National Cancer Institute, the National Institute on Aging, the National Institute of Arthritis and Musculoskeletal and Skin Diseases, and the NIH Office of the Director.
- Read the [press release](#) or watch the [video news release](#)

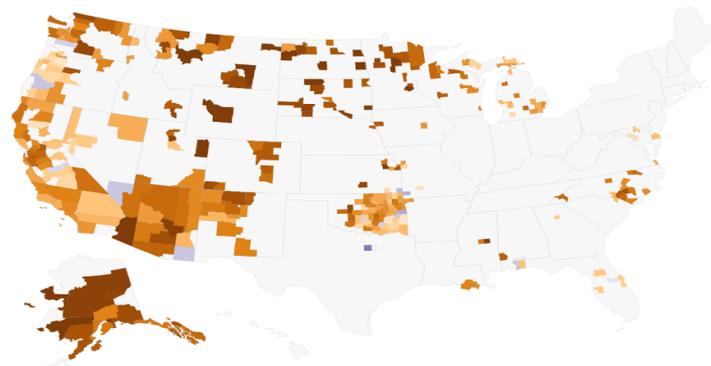


# Differences in Life Expectancy by County, Race and Ethnicity, U.S., 2000-2018

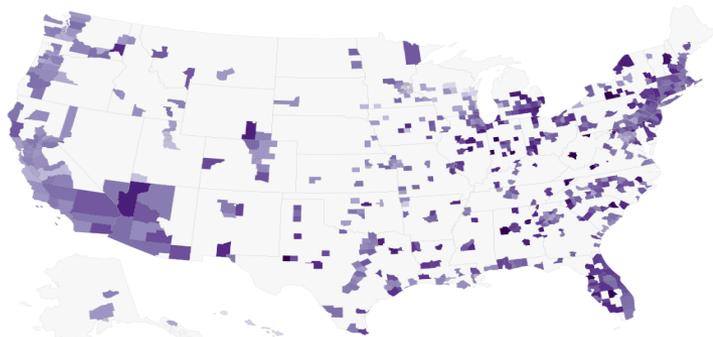
NH Black



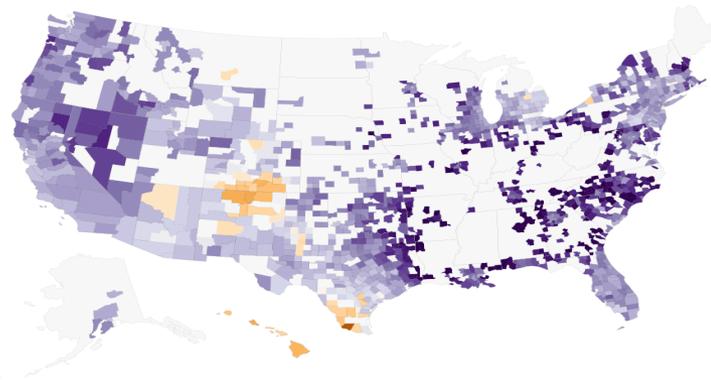
NH AIAN



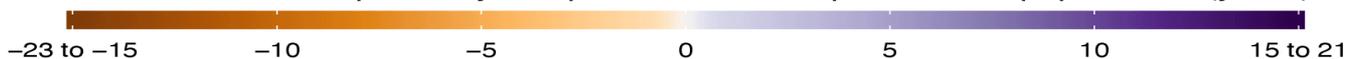
NH API



Hispanic



Difference in life expectancy compared to non-Hispanic White populations (years)



 Statistically significant difference (posterior probability > 0.95)



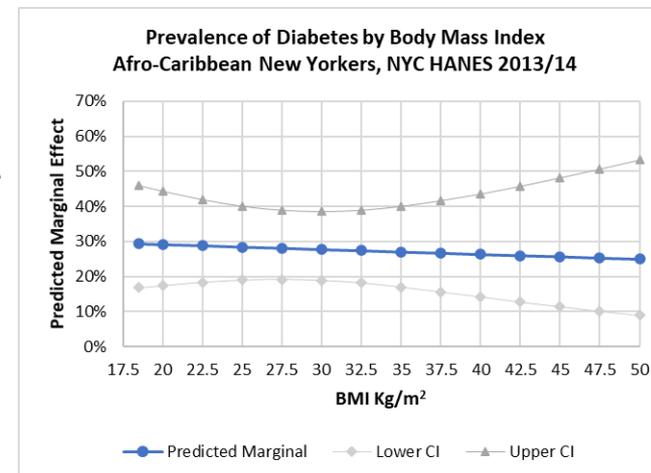
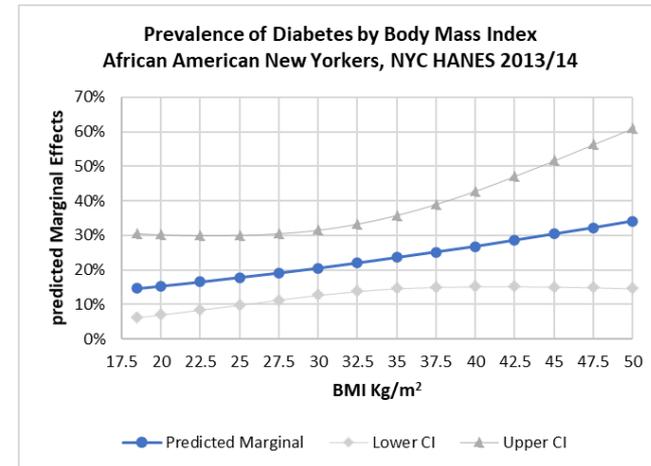
# Potential Link Between Acculturation and Depression on Sleep Duration Among Mexican Americans

- Cross-sectional survey of Mexican American adults ( $\geq 18$  years old), 2005-2018 NHANES (n=4,700)
- Living in U.S. for  $\geq 10$  years was significantly associated with longer sleep duration vs.  $< 10$  years (aOR = 1.61; 95% CI = 1.17-2.23)
- English-speaking had higher risk of short sleep duration than Spanish-speaking adults (aOR = 1.23; 95% CI = 1.00-1.52)
- Moderate (aOR = 1.94; 95% CI = 1.43–2.63) and moderately severe/severe (aOR = 2.58; 95% CI = 1.72–3.88) levels of depression were significantly associated with short sleep duration
- Odds of short (aOR=1.07; 95%-CI= 1.05-1.09) and long (aOR=1.04; 95%=CI, 1.02-1.07) sleep duration increased for every 1-point increase in the 9-item PHQ score



# Type 2 Diabetes: Differences Between New York Afro-Caribbeans and African Americans

- New York City (NYC) Afro-Caribbean immigrants (n=595,740) constitute 29% of the Black population (n=2,086,566)
- Compared Afro-Caribbean and African American groups on odds of diabetes by age and BMI
- NYC Health and Nutrition Examination Survey (NYCHANES), 2013/2014
- Every 2.5-kg/m<sup>2</sup> increase of BMI was associated with increases in diabetes prevalence among African Americans, but not Afro-Caribbeans
- Waist circumference (WC) and BMI do not predict diabetes odds for Afro-Caribbeans
- Clinical profiles among Blacks in NYC differ, with Afro-Caribbeans with diabetes having lower prevalence of obesity and higher prevalence of overweight than African Americans with diabetes



Grant No: ZIAMD000015

Williams, F., et al. *J Racial Ethn Health Disp.* 2022.



# Cortisol Levels and Daily Patterns Among Rural Latina Breast Cancer Survivors

(n=103; 582 saliva samples, 49 hair samples)

- Salivary cortisol levels, 3 time points for 3 days (awakening, 30 mins post-awakening, bedtime); 3 summary measures of dynamic cortisol awakening response (CAR): 1) CAR slope, 2)  $\geq 40\%$  change in CAR, and 3) total daily cortisol output (AUCg)
- Mean hair cortisol concentration (HCC) used to assess chronic stress
- **Only 42% of samples had adequate percent increase in CAR levels from awakening to peak, indicating abnormal stress reactivity**
- **AUCg levels indicate that women experienced sustained higher levels of cortisol throughout the day**
- **HCC levels elevated, signifying chronic stress, approx. 7x higher than a study of individuals who reported high stress levels**
- Potential HPA-axis dysregulation among rural Spanish-speaking Latina breast cancer survivors and implications for long-term survival need to be studied



# 2022 Summer Research Presentation Week

## NIMHD Summer Interns



### Summer Intern Presenters

**Top Row:** Izzy Mendez, LaKendra Beard, Lindsey Sparrock, Christy Seyl

**Bottom Row:** Chris Ma, Sophie Lu, Mayra Zamora, Christina Steele



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# Discussion



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